

TECAFORM™ HPV 13

KEY FEATURES

- Low Coefficient of Friction
- No Stick Slip
- Good Dimensional Stability
- Superior Wear Resistance
- Good Surface Hardness and Resilience
- Superior Resistance to Repeated Impacts and Creep
- Self-Lubricating
- Excellent Machinability
- Complies with FDA Regulation 21CFR 177.2470

DESCRIPTION

TECAFORM™ HPV 13 is a brown homopolymer acetal with an internal PTFE lubricant. Its low coefficient of friction, excellent PV Values, toughness, wear resistance, and machinability make it an exceptional material for use in many industrial and military components with moving parts. Additionally, TECAFORM™ HPV 13 has superior chemical resistance and flexural fatigue properties, as well as low moisture absorption associated with acetal materials.

TYPICAL PROPERTY VALUES

	Properties	Condition	Units	Value	ASTM Test
Physical	Chemical Designation			POM	
	Filler			PTFE Powder	
	Density		lbs/in ³	0.054	D792
Mechanical	Tensile Modulus	@ 73 °F	PSI	340,000	D638
	Tensile Strength @ Yld	@ 73 °F	PSI		
	Tensile Strength @ Brk	@ 73 °F	PSI	7,000	D638
	Shear Strength	@ 73 °F	PSI		
	Elongation @ Yld	@ 73 °F	%		
	Elongation @ Brk	@ 73 °F	%	10	D638
	Flexural Modulus	@ 73 °F	PSI	350,000	D790
	Flexural Strength	@ 73 °F	PSI	12,500	D790
	Compressive Modulus	@ 73 °F	PSI		
	Compressive Strength	@ 73 °F, 10% strain	PSI		
	Izod (charpy) Impact Strength	@ 73 °F	ft-lbs/in	1.00	D256
	Rockwell Hardness	@ 73 °F	M (R) Scale	118	D785
	Coefficient of Friction	Static		0.07	
	Coefficient of Friction	Dynamic, 40 PSI, 50 FPM		0.12	
	Wear (K) Factor	40 PSI, 50 FPM	in ³ /hr(l/PV)	20 x 10 ⁻¹⁰	
Limiting PV	10 FPM	ft-lbs/min	12,000		

TYPICAL PROPERTY VALUES

	Properties	Condition	Units	Value	ASTM Test
Thermal	Vicat Softening Point		°F		
	Melting Temperature		°F	347	
	Heat Deflection Temperature	@ 66	°F	334	D648
	Heat Deflection Temperature	@ 264	°F	244	D648
	Service Temperature	Intermittent	°F		
	Service Temperature	Long Term	°F	185	
	Thermal Expansion (CLTE)		in/in/°F	5.1 x 10 ⁻⁵	D696
	Specific Heat		BTU/lb-°F		
	Thermal Conductivity		BTU-in/hr-ft ² -°F		
Other	Moisture Absorption	@ 24 hrs, 73 °F	%	0.11	D570
	Moisture Absorption	@ Saturation, 73 °F	%		
	Flammability	UL 94			
	Food Grade			Y	
	Relative Cost			\$\$\$	

*The data stated above are typical values intended for reference and comparison purposes only.

*The data should not be used as a basis for design specifications or quality control.

*The information is provided as a guide to the best of our knowledge and given without obligation or liability.

*Testing under individual application circumstances is recommended.